

**WHAT IS CLAIMED IS:**

1. A safety system for a vehicle having an engine and a manual transmission, the system comprising:
  - a) a motion transducer module detecting motion of the vehicle; and
  - b) a controller module deciding erroneous starting of the vehicle and stopping the vehicle when erroneous starting is decided;wherein the controller module receives motion data from the motion transducer module, wherein a baseline is set in the detected motion data, wherein the controller module calculates number of baseline crossings that occur within a predetermined time frame in the motion data, wherein the controller module decides erroneous starting based on the number of baseline crossings.
2. The safety system of claim 1, a remote starter, which receives signal from a remote controller and starts the engine of the vehicle, is provided in the vehicle, wherein the controller module stops the remote starter from cranking the engine.

3. The safety system of claim 2, wherein the controller module adjusts the baseline so that the baseline incorporates specific characteristics of the vehicle.
- 5 4. The safety system of claim 3, wherein the controller module adjusts the baseline based on averaged motion data from the motion transducer module when the remote starter is inactive.
- 10 5. The safety system of claim 1, wherein the controller module starts calculating the number of baseline crossings when the motion data shows a predefined variation from the baseline, which indicates that the vehicle is being started.
- 15 6. The safety system of claim 1, wherein the motion transducer module comprises an accelerometer.
7. The safety system of claim 5, wherein the 20 accelerometer senses acceleration in one-dimension.
8. The safety system of claim 5, wherein the accelerometer senses acceleration in two-dimension.

9. The safety system of claim 5, wherein the  
accelerometer senses acceleration in three-dimension.

10. The safety system of claim 1, wherein the  
5 predetermined time frame is about 250 millisecond.

11. The safety system of claim 1, further comprising a  
signal conditioning module that buffers and filters  
the motion data from the motion transducer module.

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12. A method for preventing erroneous starting of a  
vehicle having a manual transmission and an engine,  
the method comprising the steps of:

- a) detecting motion of the vehicle;
- b) deciding erroneous starting of the vehicle based  
on the detected motion data; and
- c) stopping the vehicle when erroneous starting has  
been decided;

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wherein a baseline is set in the detected motion data,  
20 wherein erroneous starting is decided based on number  
of baseline crossings that occur within a  
predetermined time frame in the motion data.

13. The method of claim 12, further comprising a step of receiving signal from a remote controller and activating a remote starter that starts the engine of the vehicle before the step of detecting motion of the

5 vehicle.

14. The method of claim 13, further comprising a step of adjusting the baseline so that the baseline incorporates specific characteristics of the vehicle.

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15. The method of claim 14, the baseline is adjusted based on averaged motion data when the remote starter is inactive.

15 16. The method of claim 12, wherein the number of baseline crossings starts to be calculated when the motion data shows a predefined variation from the baseline, which indicates that the vehicle is being started.

20 17. The method of claim 12, wherein the predetermined time frame is about 250 millisecond.